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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,899	11/21/2003	Jack C. Wybenga	2003.07.015.BN0	5313
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			06/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/720,899

Applicant(s)

WYBENGA ET AL.

Examiner

Kiet Doan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This office action is response to Remarks file on 03/23/2007.

Claims 1, 8 and 15 are amended.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 8, 15 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanwood et al. (US 6,925,068) in view of Stanwood et al. (US 6,956,834).

Consider claims 1, 8, 15. Stanwood (US 6,925,068) teaches for use in a point-to-multipoint wireless network, a base station for transmitting downstream data packets in a downstream traffic channel to customer premises equipment (CPE) devices and receiving upstream data packets in an upstream traffic channel from said CPE devices (Abstract, C5, L22-30, C10, L1-12 teach base station communicated uplink/downlink with customer premises equipment (CPE) devices). Stanwood (US 6,925,068) teaches the limitation of claims as discuss **but silent on**

wherein said base station is capable of determining queue status of at least one queue associated with at least one application in each of said CPE devices, wherein

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said queue status is at least one of : a queue priority and traffic type and, in response to said determination, said base station is capable of re-allocating bandwidth from a first queue associated with a first CPE device to a second queue.

In an analogous art, Stanwood (US 6,956,834) teaches "Method and apparatus for allocating bandwidth in a wireless communication system". Further, Stanwood (US 6,956,834) teaches wherein said base station is capable of determining queue status of at least one queue associated with at least one application in each of said CPE devices, wherein said queue status is at least one of: a queue priority and traffic type and, in response to said determination, said base station is capable of re-allocating bandwidth from a first queue associated with a first CPE device to a second queue (C6, L35-60, C19, L30-67, C20, C21, L1-20).

Therefore, it would have been obvious at the time that the invention was made that person having ordinary skill in the art to modify Stanwood (US 6,925,068) and (US 6,956,834) such that a base station for transmitting downstream data packets and receiving upstream data packets from CPE devices and base station is capable of determining queue status wherein said queue status is at least one of: a queue priority and traffic type to provide means for setting order and efficient processing bandwidth allocating to CPE device.

Consider **claims 2, 9, 16**. Stanwood (US 6,925,068) teaches the base station as set forth in claim 1 wherein said second queue is associated with said first CPE device (C10, L23-35).

Consider **claims 3, 10**. Stanwood (US 6,925,068) teaches the base station as set forth in claim 1 wherein said second queue is associated with a second CPE device separate from said first CPE device (C9, L60-67, C10, L1-35).

Consider **claims 4, 11, 17**. Stanwood (US 6,925,068) teaches the base station as set forth in claim 1 wherein said base station allocates bandwidth to said second queue by transmitting a first downstream data packet, wherein said first downstream data packet comprises a Next Time Slot field capable of assigning a CPE device associated with said second queue to transmit an upstream data packet in said upstream traffic channel during a next time slot following receipt of said first downstream data packet (C7, L15-467, C8, L1-44).

4. **Claims 5-7, 12-14, 18-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanwood et al. (Patent No. 6,925,068) in view of Stanwood et al. (Patent No. 6,683,866).

Consider **claims 5, 12, 18**. Stanwood (Patent No. 6,925,068) teaches the limitation of claims as discuss above **but silent on** the base station as set forth in claim 4 wherein said Next Time slot field is part of a header of said first downstream data packet.

Stanwood (Patent No. 6,683,866) teaches " Method and apparatus for data transportation and synchronization between MAC and physical layer in wireless communication system". Further, Stanwood (Patent No. 6,683,866) teaches the base station as set forth in claim 4 wherein said Next Time slot field is part of a header of said first downstream data packet (C7, L30-63).

Therefore, it would have been obvious at the time that the invention was made that person having ordinary skill in the art to modify Stanwood (Patent No. 6,925,068) and Stanwood (Patent No. 6,683,866) system, such that time slot field is part of a header of said first downstream data packet to provide means for preventing lost data when transmitting large amount of data.

Consider **claims 6, 13, 19**. Stanwood (Patent No. 6,683,866) teaches the base station as set forth in claim 4 wherein said first downstream data packet comprises a payload of data directed to said first CPE device (C10, L10-67).

Consider **claims 7, 14**. Stanwood (Patent No. 6,683,866) teaches the base station as set forth in claim 4 wherein said first downstream data packet comprises a payload of data directed to a CPE device other than said first CPE device (C10, L10-67).

Response to Arguments

5. Applicant's arguments filed 03/23/2007 have been fully considered but they are not persuasive.

In response to applicant's argument that reference of Stanwood (Patent No. 6,863,866) fails to teach or disclose "wherein said CPE device transmits in a header of said first upstream data packet a first queue status associated a first queue in said CPE device"

Examiner respectfully disagrees, in Stanwood (Patent No. 6,683,866) wherein said CPE device transmits in a header of said first upstream data packet a first queue status associated a first queue in said CPE device (C10, L10-67 in this citation the office interpreted the base station and CPE device use either standard MAC header or abbreviated MAC header as transmits in a header of said first upstream and Stanwood (Patent No. 6,683,866) teach limitations of first upstream data packet a first queue status associated a first queue in said CPE device, see C10, L23-35, C13, L15-28 teach the different multiplexed information stream between the base station and CPE).

Therefore, examiner interpreted "wherein said CPE device transmits in a header of said first upstream data packet a first queue status associated a first queue in said CPE device" as broadest reasonable interpretation and it is proper.

6. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention

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where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the office motivation for transmitting data in an sufficient way which preventing loss of data when transmits large amount of data/bandwidth.

7. Consider **claim 20**. Stanwood (Patent No. 6,925,068) a customer premises equipment (CPE) device for use in a point-to-multipoint wireless network comprising a plurality of base stations, said CPE device capable of transmitting upstream data packets in an upstream traffic channel to a first one of said plurality of base station and receiving downstream data packets in a downstream traffic channel from said first base station (Abstract, C5, L22-30, C10, L1-12 teach base station communicated uplink/downlink with customer premises equipment (CPE) devices).

wherein said CPE device detects in a first downstream data packet a Next Time Slot field assigning said CPE device to transmit a first upstream data packet in said upstream traffic channel during a next time slot following receipt of said first downstream data packet (C7, L15-467, C8, L1-44), and

Stanwood (Patent No. 6,683,866) wherein said CPE device transmits in a header of said first upstream data packet a first queue status associated a first queue in said CPE device (C10, L10-67).

Therefore, it would have been obvious at the time that the invention was made that person having ordinary skill in the art to modify Stanwood (Patent No. 6,925,068) and Stanwood (Patent No. 6,683,866) system, such that CPE device capable of transmitting upstream data packets in an upstream traffic channel to a first one of said plurality of base station and receiving downstream data packets in a downstream traffic channel from said first base station and Time Slot field and header assigning/transmits said CPE device to provide means for transmitting data in an sufficient way which preventing loss of data when transmits large amount of data/bandwidth.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

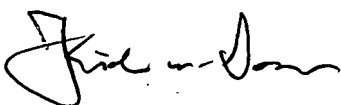
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiet Doan whose telephone number is 571-272-7863.

The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Kiet Doan
Patent Examiner



JOSEPH FEILD
SUPERVISORY PATENT EXAMINER